Transportation
Finance & Policy Commission

Tolling Policy and Implementation Issues
Policy Issue Paper

Description of Policy Issue

As a result of diminishing traditional transportation funding sources such as motor fuel taxes and barriers associated with increasing them, many states have begun examining tolling revenue as an alternative funding source for transportation projects. The Commission has asked the following questions about tolling as a revenue source:

- What portions of Wisconsin roadways could be tolled?
- What implementation issues and user concerns would need to be addressed?

To answer these questions, this paper will identify statutory, policy and operational challenges to be resolved in Wisconsin in order to implement tolling; analyze automated tolling options and the pros and cons of each; and discuss administrative costs and implementation issues associated with recent tolling projects in Colorado and Texas.

Tolling is defined as the collection of a fixed fee from motorists for highway use as a tool to generate transportation revenue. Pricing is the use of tolls that vary by level of vehicle demand and is used primarily to manage congestion. A distinctly different concept is vehicle-miles-traveled (VMT) fees, which are distance-based fees levied on a vehicle user on a per-mile basis. To date, VMT fees as a method of revenue exist merely in proposal form while toll roads are increasingly common across the United States. This paper focuses only on tolling programs.

Tolling takes three general forms in the United States: bridge/tunnel tolls, highway corridor tolls, and congestion pricing. *Bridge tolls* include both interstate and non-interstate bridges/tunnels, and some connect Canada and the United States. *Corridor tolling* (managed lanes) applies to all or part of a congested highway. *Congestion pricing* may include different toll rates based on time of day and changing traffic conditions, variably priced express lanes, or tolls allowing single occupant vehicles access to lanes reserved for high occupancy vehicles (HOV) and public transit vehicles.

In addition to creating a revenue source for transportation projects, tolling is an effective tool in addressing traffic congestion conditions, creating more reliable travel times, decreasing fuel consumption, and efficiently maximizing use of the highway. A 2007 study by the Federal Highway Administration (FHWA) estimates the widespread implementation of tolling could reduce the investment needed to maintain the highway system at its current physical condition and operational performance by more than 25 percent. However, tolling has its own set of challenges that impact individual states on different levels, including the effect on low-income highway users, the diversion of traffic to alternative routes, and implementation costs.

Key Issues – Current Policy (Federal)

Title 23 of the United States Code (highways) prohibits the imposition of tolls on federal-aid highways. However, Title 23 and other statutes allow for exceptions through six federal tolling programs that provide states with tolling options for federally funded highways, including interstate highways. While these six programs have various limitations, the guiding principle for consideration of any toll project is that *if federal funds have been used or will be used on a highway,* then the public authority responsible for the facility must qualify for toll authority under one of these six federal programs.

The Federal Highway Administration's (FHWA's) Office of Innovative Program Delivery is responsible for receiving and reviewing all *Expressions of Interest* submitted by a public authority and for coordinating all tolling and pricing programs that exist under the federal-aid highway program. Submittal of an Expression of Interest initiates the review process that leads to a recommendation as to which tolling program (or programs) will be appropriate to meet the goals of the public authority. The toll agreement must be executed with FHWA and must address the use of revenues collected from the toll facility.

Toll programs require that toll revenues are used for debt service; that tolls provide a reasonable return on investment for private party financing; and that tolls contribute funds needed for the proper operation and maintenance of the facility. In some cases, toll revenues may be applied to other uses on federally eligible highway and transit projects.

The six federal toll programs consist of tolling revenue programs and congestion management programs. The recently enacted federal transportation reauthorization legislation, Moving Ahead for Progress in the 21st Century (MAP-21), modified these programs. The most significant change expands the ability of states to use federal funds to construct and toll new capacity on the Interstate and the federal-aid highway system as long as there is a net increase in new capacity associated with the project. The MAP-21 changes are noted in the following program descriptions:

1. ***Section 129 (General Toll Program)*** – This program has no restrictions on the number of projects or states that FHWA may authorize to receive tolling authority. The program permits federal participation for the following toll construction activities:

    - Initial construction (except on the Interstate) of toll highways, bridges, and tunnels, including the approaches to these facilities;
    - Reconstructing, resurfacing, restoring, and rehabilitating work on any existing toll facility;
    - Reconstructing or replacing free bridges or tunnels and converting to toll facilities; and
    - Reconstructing a free non-Interstate system highway and conversion to a toll facility.

2. ***Interstate System Reconstruction and Rehabilitation Pilot Program*** – The program allows states to convert free Interstate highways into toll facilities when reconstruction or rehabilitation financing is possible only with the collection of tolls. Interstate Maintenance[1] (IM) funds are not permitted on tolled facilities. A state's toll collection must be for a specified term exceeding ten years. Currently, FHWA allows only three distinct Interstate facilities, including the same facility in multiple states, to be tolled under this program.

[1] Beginning in Federal Fiscal Year 2013, the Interstate Maintenance (IM) formula program will be folded into the new National Highway Performance Program.

MAP-21 legislation maintains the three distinct Interstate facilities restriction. Currently, the three slots are held by Missouri, North Carolina and Virginia.

3. ***Interstate System Construction Toll Pilot Program*** – This pilot program allows the United States Department of Transportation (USDOT) to permit construction of three new Interstate facilities as toll facilities. The program is limited to new Interstate construction only. Slots may be "shared" among states to construct their portions of the same Interstate. MAP-21 legislation removes these restrictions by permitting the construction of a *new* highway, Interstate or non-Interstate, as a tolled facility.

4. ***High Occupancy Toll or HOT Lanes (Section 166)*** – This program allows states to impose tolls on existing High Occupancy Vehicle (HOV) or carpooling lanes for both Interstate and non-Interstate miles, thereby permitting non-carpooling vehicles to use HOV facilities through tolls. These converted lanes are known as high occupancy toll (HOT) lanes. There is no limit on the number of projects or states that USDOT can authorize under this program.

5. ***Value Pricing Pilot Program*** – This pilot program is designed to assess the potential for different value pricing approaches to reducing congestion. The program encourages implementation and evaluation of projects encompassing a variety of strategies to manage congestion on both existing and new highways. Options include:
    - tolling of highway facilities (including Interstates); and
    - other pricing strategies not involving tolls.

    This is the only federally funded toll program authorized to study and implement a tolling or pricing project. USDOT can authorize up to 15 state or local governments to establish value pricing programs; currently, no slots are available.

6. ***Express Lanes Demonstration Program*** – This program authorizes 15 demonstration projects to collect tolls at eligible toll facilities to address congestion, emissions, or financing issues. USDOT has authorized five of the 15 available slots for demonstration projects. Eligible facilities include toll facilities and HOV lanes in operation on August 10, 2005, and facilities modified or constructed after August 10, 2005. If a new lane is being added to a previously non-tolled facility, only the new lane can be tolled. This program expires with SAFETEA-LU.[2] MAP-21 legislation removes the eligible toll facilities restrictions associated with this program.

[2] The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users.

Key Issues – Current Policy (State)

Wisconsin has limited toll legislation covering certain bridges. Section 86.21, Wis. Stats., permits a county, town, village, or city to construct, maintain, and operate a foot and/or vehicular bridge '…bordering upon any navigable waters which form the boundary line between this and another state….whether such bridge is located wholly or only partly within the boundaries of this state and whether such bridge is located within or only partly within…such county, town, village or city.' The decision to construct or acquire an Interstate toll bridge must be approved by a majority of the governing body and by the general electorate.

Payment for the acquisition or construction of a toll bridge can be derived from revenue bonds, with revenue from the bridge used to pay the bonds. Since the toll bridge is considered a public utility, the local governing body, according to s. 66.0805, Wis. Stats., has authority to create and appoint a commission to manage the bridge.

In the first half of the 20th century, Wisconsin had privately held toll bridges, most notably the Hudson Toll Bridge across the St. Croix River, which opened in 1913 and closed in 1951. Revenue from that bridge was used for Hudson civic improvements and to maintain minimal real estate taxes in the community. Today the site is a pedestrian causeway with an historic Hudson Toll Bridge Arch and Marker.

The Eagle Point Toll Bridge that spanned the Mississippi River from Grant County in Wisconsin to Dubuque, Iowa, was owned and built by the Dubuque and Wisconsin Bridge Company in 1902. At the time of the bridge closing in 1983, the bridge was owned by the Iowa Department of Transportation and the toll was ten cents both ways, collected in Iowa. After its closure, money collected from the bridge crossing toll helped pay for demolition of the bridge.

Eagle Point Bridge, with the new US 151/61 Dubuque-Wisconsin Bridge in the distance

Hudson Toll Bridge Causeway Historical Arch and Marker

The State of Wisconsin has no legislation in place to address the tolling of roads and tunnels.

While MAP-21 relaxes the general prohibition against tolling, the two-year federal transportation legislation reaffirms that individual states must enact tolling legislation prior to instituting any tolling on bridges, highways, or tunnels.

Other provisions of MAP-21 impacting tolling regulations include the following:

- Section 1512 permits construction of new toll lanes on highways, tunnels, and bridges as long as the number of toll-free lanes remains the same as prior to construction.

- Section 1512 permits the reconstruction of a highway, tunnel, or bridge to a toll highway, tunnel, or bridge. Interstate lane conversions to toll lanes that increase capacity or manage congestion are permitted.

- HOV lane conversions to HOT lanes (high occupancy toll lanes on the Interstate in metropolitan areas) require the endorsement of the metropolitan planning organization, electronic toll collection, and an enforcement system for violations.

- Tolled highways, tunnels, bridges, and approaches must be publicly owned or, if privately owned, must have entered into a contract with the public authority that has jurisdiction over the highway, bridge, tunnel, and approaches for the design, finance, construction, and operation of the toll facility. The public authority is responsible for compliance with all federal rules of the facility.

- Use of toll revenues includes debt service, private return on investment, operations and maintenance of the facility; and, as long as the public authority certifies adequate maintenance of the toll facility, "…any other purpose for which Federal funds may be obligated by a State…"[3]

- High Occupancy Vehicles (HOV) are now defined as vehicles with a minimum of two passengers.

- Interoperability of electronic toll collection programs is mandatory within four years of the passage of MAP-21.

- Demonstration that HOV toll lanes will not cause degradation of the roadway facility; or if the roadway is degraded, it must be brought into compliance through specific changes to HOV lanes usage rules, such as increasing occupancy requirements, varying tolls to reduce demand, or increasing capacity.

- Intelligent Transportation Systems (ITS) research opportunities leading to the acceleration and deployment of innovative ITS technologies promoting interoperability and efficiency of systems.

Variations in state toll road legislation are common and range from the creation of a toll authority or commission to imposable constraints on the use of funds. Legislation should, and generally does, address the legal powers of an entity, the authority to set and revise tolls, police powers, the relationship to/with other entities, and operation, maintenance and repair obligations. An agency structure over toll road projects can run from all public to complete privatization of agency responsibility. The three main types of administrative jurisdiction are:

- *Traditional new public highway* – state government ownership and funding;

[3] *MAP-21 Conference Report*, 112th Congress, 2nd Session, Report 112-557.

- *Traditional new public toll-road delivery* – public authority ownership and operation; and

- *Public-private partnerships (P3s)* – contractual agreements between a public agency and a private entity with the private sector taking on additional project risks, such as design, finance, long-term operation and traffic revenue.

The traditional public toll road authority can include:[4]

- *City or county government* – toll road and ownership, including toll revenues, are controlled by local government;

- *Local commissions or authorities* – toll entities created by state statute with financial responsibility for commitments entered into and projects completely self-funded;

- *Dependent state authorities* – Dependent state authorities are financial extensions of the state DOT. The authority is responsible for all debt issued, but transfers bond revenues and operation of toll system to the State under a lease agreement. Lease payments received from the State are then applied to service the debt;

- *Independent state authorities or commissions* – commissions and authorities are autonomous in financial responsibilities,such as fixing toll rates and charges and repaying the debt. No funding is received from the State and ultimate debt payment is sole obligation of the authority;

- *Blended public-private financing for new public toll road delivery* – control and direction under government oversight; financing delivers a complete, stand-alone project without recourse to government funding if toll revenues are insufficient;

- *Public-private partnerships to deliver new road capacity* – substantial private equity participation and strong private role in finance, construction, and operation; and

- *Privately supplied new highway* – finance and risk assumed almost entirely by private developers and their financial supporters.

[4]Office of Highway Policy Information (OHPI) – Highway Performance Monitoring System (HPMS); www.fhwa.dot.gov/policyinformation/tollpage/history.

Key Discussion Points – Tolling in Wisconsin

As of 2010, the Wisconsin Department of Transportation (WisDOT) registered nearly 5.5 million vehicles in the state and recorded 4.1 million licensed drivers. Wisconsin has 11,800 miles of state and Interstate highways; 103,000 miles of county highways, town roads and municipal streets; and about 13,700 state and local bridges. Wisconsin's vehicle-miles-traveled (VMT) averages 59 billion miles per year, including just over six billion commercial vehicle miles.

In 2010, the Wisconsin Policy Research Institute (WPRI) commissioned the Reason Foundation, led by Robert Poole, Director of Transportation Policy, to study the feasibility of tolling as a dedicated transportation revenue source for the state. Much of the following section is taken from that study, "*Rebuilding and Modernizing Wisconsin's Interstates with Toll Financing,*" a report distributed to the Wisconsin Transportation Finance and Policy Commission in March 2012. Poole's study focuses on tolling the Interstate System.

Two national commissions[5] issued reports concluding that the fuel-tax funding system is not viable and should be replaced with a mileage-based user fee system. If the federal Highway Trust Fund were to replace its principle source of revenue with mileage-based fees, states would be expected to follow suit in order to finance highway projects. Indeed, a fuel tax increase has limited public support, and with the current emphasis on developing and marketing alternative-fuel vehicles, financing highway projects solely with fuel tax revenues has limited viability over the long term. The FHWA projects that toll financing of projects will become increasingly important and reports that already one-third to one-half of new limited-access highway capacity across the country has been financed with toll revenue.

Wisconsin's 743 miles of Interstate highway carries 18 percent of the state's travel miles and is responsible for carrying over 20 percent of all heavy truck traffic. Yet over the next 30 years, Wisconsin's Interstate System will see the end of its design life and will be in need of complete reconstruction. It is estimated that the rural Interstate System will cost approximately $12.5 billion to reconstruct and the urban Interstate System, including the southeast freeway system, will cost over $13 billion to reconstruct.

With the state transportation budget derived almost entirely from the gasoline tax and driver registration and license fees, each revenue source is expected to experience no growth or even decline in the future. An additional source of revenue will be needed to reconstruct and maintain the Interstate system. As Poole notes, "…federal transportation money peaked, in real terms, in 2004, and has been trending downward since then."[6]

Portions of Wisconsin Roadways that could be Tolled

Any state highway reconstruction project is eligible for tolling under a federal Section 129 toll agreement. Additional lane miles to a reconstruction project are also eligible for tolling. New Interstate lanes and non-Interstate lanes may be tolled as high occupancy vehicle (HOV/HOT) lanes while the remaining lanes are untolled, free lanes of travel. Interstate toll lanes are carefully developed under the federal government's three pilot programs. Key points:

[5] Report of the National Surface Transportation Policy and Revenue Study Commission – *Transportation for Tomorrow, 2007* and Report of the National Surface Transportation Infrastructure Financing Commission – *Paying our Way – A New Framework for Transportation Finance, 2009*

[6] Robert W. Poole, Jr., Rebuilding and Modernizing Wisconsin's Interstates with Toll Financing, 2011.

- If federal funds have been used or will be used on a highway, then the public authority responsible for the facility must qualify for toll authority under one of six federal programs.

- All toll revenue from the roadway must be used for debt service, operation and maintenance of the roadway facility.

- Provisions within each of the six toll programs include such elements as: eligible use of toll revenues; types of vehicles that may or may not be subject to tolls; methods of collecting tolls; maintaining performance standards on the facility; and the use of other federal funds on the facility while tolls are in place.

- Studies generally focus on tolling the Interstate since Interstates account for one-quarter of vehicle-miles traveled in urban areas. Current federal rules specific to Interstate tolling contain limits on the number of states that can participate or the number of projects in the Value Pricing and Express Lanes programs. Federal legislation will be needed to change these rules and/or to accommodate additional states.

- The national Surface Transportation Infrastructure Financing Commission recommends that "…to ensure full adherence to the commerce clause of the Constitution, any potential adverse impacts on interstate commerce and local travel should be thoroughly analyzed and appropriately mitigated as a requirement for implementation."

- Non-interstate highways can be tolled through the Section 129 general toll program as part of new construction or reconstruction of a roadway, tunnel or bridge, toll revenue must be used to maintain and operate the roadway.

As noted earlier in this paper, once a roadway construction project is identified for potential toll lane/road conversion, discussion with the USDOT's Innovative Program Delivery (IPD) Office is necessary and is initiated by an *Expression of Interest* submitted by the state DOT. The Expression of Interest is a starting point to review project goals and to determine the appropriate tolling program from which to request authorization.

Interstate Travel

In Wisconsin, the Interstate handles 18 percent of all vehicle miles traveled and over 20 percent of heavy truck miles traveled. Wisconsin's Interstates are in need of complete reconstruction over the next 30 years. In the fall of 2010, the state's Transportation Projects Commission approved the expansion of I-90/I-39 from four lanes to six lanes between Madison and the Illinois border. The southeast region of the state is reconstructing and expanding I-94 North/South and is beginning the I-94/I-894/US 45 (Zoo Interchange) reconstruction. The northeast region of the state is presently upgrading US 41 to Interstate conversion standards.

The state's 743 route-miles of Interstate roadway and the Interstate's importance as a primary travel route for the movement of goods and people is a reasonable starting point for consideration of toll road conversion and construction. However, given the state's scattered demographic centers, another nearly 12,000 route-miles of rural and urban state highways may also support open road tolling. Segments with heavy daily vehicle traffic may also support the deployment of congestion pricing strategies as a funding source for roadway operations and maintenance.

Open Road Tolling and Electronic Toll Collection

Cash payment at traditional toll booths is obsolete in most discussions of toll road technology and is envisioned to disappear altogether in future toll projects. Electronic toll collection and open road tolling technology contributes significantly to alleviating throughput congestion, enforcing toll evasion, and reducing dangers of high-speed collisions at collection points. In most instances, the federal government's toll programs require electronic tolling.

Open road tolling is the use of electronic toll collection without the need for toll plazas or toll booth lanes.[7] Vehicles pass under transponder readers at highway speeds. Illinois' open road tolling program features 274 contiguous miles of barrier-free roadways. Currently, over 80 percent of Illinois' 1.4 million daily drivers use an I-PASS.

Electronic toll collection has led to automated toll collection across state lines through toll authority reciprocity arrangements. One such example is the E-Z Pass transponder, which is accepted on toll roads, bridges, and tunnels in 14 states from Illinois to Maine. Coordination between customer databases is critical.

Electronic Toll Collection Systems are comprised of four major components: automated vehicle identification, automated vehicle classification, transaction processing, and violation enforcement.

- *Automated vehicle identification (AVI*) is the process of determining the identity of a vehicle subject to tolls. The overhead equipment can be set with cameras to capture license plate images for video billing to those traveling without a transponder.

- *Automated vehicle classification* is the process of differentiating types of vehicles, an important component of establishing the vehicle toll rate. Some toll authorities store the vehicle type in the customer record.

- *Transaction processing* deals with maintaining customer accounts, posting toll transactions, and handling customer calls. Transactions without customer accounts cost toll agencies time and money. Incentives of lower toll rates can be offered to customers who sign up for a transponder and/or maintain balances in their accounts, thus reducing the need to bill or enforce toll payments. Conversely, a penalty of a processing charge can be added to customers without transponders/accounts.

- *Toll violation enforcement* has become more affordable and efficient with the use of number plate recognition (video billing) for users without transponders. The Illinois Tollway requires transponder users to enter license plate information when establishing accounts.

Wisconsin tolling practice could be established as a cashless approach and could deploy technology compatible with the Illinois I-PASS system and the multistate E-Z Pass. A cashless toll system could be implemented with toll payments through video imaging billing or pay-as-you-go at concession stops, such as gas stations, along the toll route.

Administrative Costs and Considerations

Toll facilities are typically financed through the issuance of bonds, which are then repaid through toll revenue. State and federal funding may be used, including the federal Transportation Infrastructure Finance and Innovation Act (TIFIA) and state infrastructure bank loans.

[7]Toll plazas can require more right-of-way for construction than the rest of the highway, an important consideration for non-Interstate tolling.

Careful upfront coordination and agreements between a toll authority and the state department of transportation, as well as any private partners and the federal government, are important, especially in the interim period between construction or conversion to toll road status and generation of actual toll revenue. In examining toll collection cost studies, Poole references six reports:

Toll Collection Cost Studies[8]		
Report	**Cost as % Revenue**	**$ / Transaction**
IBI for WSDOT, 2007	12% to 20%	23 cents to 62 cents
ATRI (Truckers), 2007	22% to 30%	N/A
NCHRP, 2011	15% to 92%	22 cents to $1.50
Reason AET 'Best Practices' Study, 2012		
Transponder transactions	4% to 9%	5 cents to 12 cents
All transactions	11% to 27%	12 cents to 54 cents
Notes: Red observations are for a micro operation. Transponder transactions represent baseline AET collection costs.		

A snapshot of 2010 toll road financial reporting of operating revenue and toll road operating expenses from select states indicates that toll road authorities generally have been successful in covering their operation and maintenance costs.

2010 Toll Road Operating Revenue and Expenses[9]					
State	**# of Toll Rd Miles**		**Operating Revenues**	**Operating Expenses**	**2010 Operating Income[10]**
Kansas	236	2010	$ 90,676,092	$ 64,290,223	$ 26,385,869
		2011	$ 90,311,473	$ 63,989,469	$ 26,322,004
Illinois	286	2010	$ 673,000,000	$ 592,000,000	$ 81,000,000
		2011	*Not available*	*Not available*	*Not available*
Texas (Central Texas Turnpike)	65	2010	$ 73,298,997	$ 67,212,180	$ 6,086,817
		2011	$ 74,864,328	$ 69,450,736	$ 5,413,592
Texas (Harris County Toll Road Authority)	104	2010	$ 456,713,000	$ 227,129,000	$ 229,584,000
		2011	$ 482,198,000	$ 217,988,000	$ 264,210,000
Ohio	241	2010	$ 251,728,000	$ 171,081,000	$ 80,647,000
		2011	$ 251,439,000	$ 167,817,000	$ 83,622,000
Florida	460	2010	$ 611,596,000	$ 237,695,000	$ 373,901,000

[8] Presentation to the Wisconsin Transportation Finance and Policy Commission, Interstate Tolling for Wisconsin, Robert W. Poole, Jr., 2012, http://reason.org/transportation.

[9] Each state's respective Toll Road Authority Annual Financial Reports, 2010, 2011. (Illinois State Toll Highway Authority publishes in July of the current year for the previous year. At the time of this report, 2012 was not available.)

[10] Excludes debt service charges, if any. The cost of financing could be a significant component of total expenses associated with administering a toll program. For example, 2010 Operating Income of $81 million for Illinois is eclipsed by $198 million in interest expense. The terms and conditions of the debt instrument will determine the significance of this non-operating charge for each state.

		2011	$ 611,946,000	$ 234,600,000	$ 377,346,000
Pennsylvania	470	2010	$ 710,101,000	$ 638,742,000	$ 71,359,000
		2011	$ 758,648,000	$ 641,457,000	$ 117,191,000

The potential for local road diversions as a result of a toll road conversion must be carefully studied. FHWA prohibits a state from entering into an agreement with a private entity that would prevent the state from improving or expanding a road adjacent to the toll road to address conditions resulting from diverted traffic, i.e. non-compete agreements.

User Concerns

Studies indicate that the public is mixed on the issue of toll revenue in lieu of any new taxes or a gasoline tax hike. Unlike gasoline and sales tax revenue, toll revenue must be used to maintain and operate the toll road; thus, it is perceived as a dedicated cause-and-effect user fee. In cases of congestion, variable pricing allows the user to exercise some element of control over where and when travel takes place. However, some states that have not tolled in the past have significant concerns with the implementation of tolling.

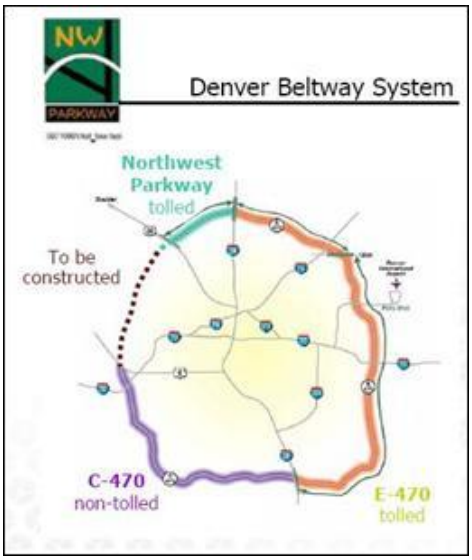
Wisconsin's roadways cover an expansive geographic area resulting in opportunity for diversion from toll roads. Roadways are used for the commercial movement of goods, commuter traffic, regional traffic, and farm equipment traffic. With limited alternative transportation choices in urban areas and even fewer choices in rural areas, it may be challenging to create an equitable fee structure. In some instances, subsidies may be necessary to permit travel to work, on farmsteads, and for the movement of goods and services.

When considering electronic tolls and open-road tolling, issues of customer privacy must be discussed. New users may be wary of buying into systems that appear to track their travel movements. In an era of electronic banking, however, it is possible to develop secure transaction systems. Data systems in other states could be reviewed for security strengths and weaknesses.

Key Discussion Points – Tolling in Other States

FHWA's 2011 data for tolls in operation in the United States includes 5,540 urban and rural miles of tolled facilities. Nearly 60 percent of tolled miles are on the Interstate System (2,112 rural and 1,152 urban miles). As of 2011, there were 342 toll road and bridge/tunnel facilities in 37 states, with 47 percent of all toll facilities located in just four states and 73 percent of all toll facilities located in ten states. Midwest states with toll facilities include Illinois, Indiana, Kansas, Michigan, Minnesota, and Ohio.[11]

Case Study: Colorado



Source: http://www.northwestparkway.org/aboutus.htm

Toll Authorities

The High-Performance Transportation Enterprise **(HPTE)** was formed through the Colorado State Legislature, which enacted the Funding Enhancement for Surface Transportation and Economic Recovery (FASTER) Act (S.B. 90-108) in 2009. The HPTE operates as a government-owned business within the department of transportation. The HPTE's primary task is to identify alternative ways to fund transportation projects.

The HPTE replaced the Colorado Tolling Enterprise (CTE), created in 2002 by the Colorado State Legislature. The HPTE is considered a division of the Colorado Department of Transportation (CDOT) and has the power to issue bonds, impose tolls and user fees, and enter into contracts with public and private entities. The legislation requires HPTE to file an annual report with the state legislature outlining activities from the previous year.

The governing structure of the HPTE is a seven-member board of directors comprised of three members of the Transportation Commission and four external members appointed by the Governor. Additional support is provided by HPTE staff, CDOT employees, and outside consultants. All HPTE expenditures, including CDOT employee time, are tracked independently of CDOT in order to maintain a separation of organization. The HPTE is considered an enterprise under the state constitution "…so long as it retains the authority to issue revenue bonds and receives less than 10 percent of its total revenues in grants from the State and local governments."[12]

The HPTE is exempt from Colorado's procurement code and has its own set of project implementation guidelines for development of public-private partnerships to efficiently complete priority transportation infrastructure projects. The HPTE's focus is on congestion-relief corridor efforts through innovative financing initiatives. A primary responsibility is the management of tolling functions formerly held by the CTE.

The anticipation and coordination of expanding managed toll lanes is a key component of HPTE's work. I-25 express lanes were in dire financial shape under the CTE. In 2011, HPTE in

[11] Publication No, FHWA-PL-11-032, http://www.fhwa.dot.gov/policyinformation/tollpage (web-only publication).

[12] Colorado High Performance Transportation Enterprise Annual Report: FY 2011; www.coloradodot.info/programs/high-performance-transportation-enterprise-hpte.

partnership with CDOT procured a new operation and maintenance contractor for the I-25 express lanes.

Administrative Costs
According to HPTE's annual report to the Legislature, its principal source of revenues is the I-25 express lanes, with revenues and expenditures accounted for separately. Administrative and operating costs are paid "…using a combination of federal grants, loans from the Transportation Commission and other miscellaneous sources."[13]

Projects
The I-25 Express Lanes project is listed as the Enterprise's completed project "…marking the first time solo drivers could legally access existing HOV lanes by paying a toll." The Express Lanes corridor is seven miles long. Carpools, buses, hybrid vehicles, and motorcycles use the HOV lanes toll-free.

The US 36 Managed Lanes/Bus Rapid Transit project has a Design-Build contract. The project is intended to ease intense congestion through a multi-agency collaborative effort.

In Colorado, Public Highway Authorities are established by local jurisdictions under authority of state statutes. The Northwest Parkway Public Highway Authority (NWPPHA) is responsible for the Northwest Parkway, a nine-mile, 70 miles-per-hour parkway that is 100 percent privately funded. As the Parkway's traffic and revenue were well below forecasts, a toll concession was established in 2006.

The toll operator for the Parkway, a privately held Portuguese company, Brisa, and its Brazilian partner, CCR, entered into a 99-year toll concession lease with NWPPHA that "…retires all outstanding NWPPHA bonds, provides funds for the Authority members and payment of other pre-existing obligations and transfers financial and operational responsibility and reward to the private sector Brisa/CCR joint venture." The Northwest Parkway Public Highway Authority remains in existence to oversee the concession agreement and to take back control of the toll road in 2106.[14]

Electronic Toll Collection
As of 2009, Colorado's system of toll roads and managed lanes was a 100 percent cashless, electronic toll system. The move to an all-electronic toll collection system was implemented in phases. Even though Colorado has toll roads under different management, its billing system is fairly seamless. While transponders are used on some toll road segments and video tolling on others, arrangements were negotiated for costs and revenues in a seamless transaction for users. Users register on the website by giving their license plate numbers and credit card information for automatic billing of their accounts. In either instance, toll users who have transponders or GO-PASS accounts receive a discount, while a processing fee is attached to any customers billed via the U.S. mail.

[13] HPTE FY 2011 Annual Report.

[14] *www.tollroadsnews.com/node/3263.*

Case Study: Texas

Toll Authorities

Texas has multiple toll authority agencies, including the Texas Department of Transportation (TxDOT), regional mobility agencies, and county toll authorities.

In 2001, the Texas State Legislature authorized creation of Regional Mobility Authorities (RMAs) as local, independent transportation agencies that can finance, build, operate, and maintain toll (and non-toll) roads and other projects as a way to address transportation issues with the assistance of non-traditional funding. RMAs may consist of a single county or multiple counties. According to Texas Tollways of TxDOT, there are currently eight RMAs in Texas. The Texas Transportation Commission has general oversight to create or dissolve an RMA and to approve federal funding applications.

TxDOT is the parent agency of the RMA or can be viewed as an arm of TxDOT for the local area. RMAs have the authority to develop projects, enter into agreements, apply for loans, establish tolls, and use surplus revenue to finance other local (tolled or non-tolled) projects. Toll revenue has the potential to offer local jurisdictions flexibility to address transportation needs on a regional level.

As RMAs partner with metropolitan planning organizations (MPOs) to resolve local transportation issues, the MPOs receive the benefit of working with agencies whose focus is regional transportation priorities. In a 2005 Mid-Continent Transportation Research Symposium paper delivered by David Bruno of TxDOT and Charles Stevens of the Texas Transportation Institute, it is stated that the biggest short term hindrance for RMAs is initial start-up financing costs. However,

> "The long-term benefits begin to emerge as the RMA exercises its authority to develop a wide range of transportation projects. The revenue supplied by successful toll projects and the resulting flexibility to consider a broad range of projects provide local governments greater control in planning for the needs of the transportation system. The relationship between the RMA and TxDOT should resemble the relationship between TxDOT and the FHWA. The RMA, operating within the policies of TxDOT, will handle the daily operation of the highways under their authority. TxDOT will oversee responsibilities, but stay out of the daily operations. As all these elements work together, the mobility of the area improves congestion relief and increases motorist safety."

Administrative Costs

RMAs receive funding for project development through the sale of bonds. They may receive either a loan or grant from TxDOT as well. Texas RMAs can use the federal TIFIA loan program as a funding source.

Unlike RMAs that function as independent transportation agencies at the local level, enterprise funds are part of the county government structure. Enterprise funds are an effective reporting mechanism when public fees and charges are levied on a service, such as a toll road, as revenues and costs for the service must be reported and maintained separately from the government's general fund. Essentially, the community is readily able to ascertain the true costs of operating the service/road and understands that a dedicated source of revenue directly maintains the service. Enterprise revenues must be used to support the enterprise, e.g., the toll road.

Projects
The Houston metropolitan area toll road authority is a division of the Harris County Public Infrastructure Department whose toll road authority was established in 1983 as part of a referendum to use $900 million in bonds for toll road construction. The Harris County Toll Road Authority (HECTRA) is an enterprise fund of Harris County using toll road revenues to finance operations, debt service, and future projects.

On May 5, 1994, the Jesse Jones Toll Bridge, now called the Sam Houston Tollway Ship Channel Bridge, was acquired from the Texas Turnpike Authority (TTA) and integrated into the Harris County Toll Road Authority (HECTRA) system as a segment of the Sam Houston Tollway. Harris County's purchase of the bridge was accomplished through the sale of a series of bonds, which were part of the toll road bond authorization approved by Harris County voters in 1983. Part of the transfer agreement included retiring all existing TTA debt on the bridge. TxDOT has authorized Harris County to construct additional toll road, donating right-of-way and providing interchanges.

Federal funds were provided to the project through an agreement with HECTRA, the Federal Highway Administration (FHWA), TxDOT and Harris County.

Electronic Toll Collection
Texas allows both cash collection of tolls (toll booths) and electronic collection of tolls. Open-road tolling and electronic toll collection are increasingly the only means of collection for new toll road and toll lane projects. Texas Tollways of the Texas Department of Transportation uses a TxTag micro-chipped sticker attached to the windshield for electronic processing of tolls. The TxTag is accepted by most toll roads throughout Texas, including Dallas and Houston. (Dallas and Houston use the TollTag and EZTag, respectively for electronic toll collection.) For users who do not have an account, a video image of the license plate bills the owner of the vehicle on a monthly basis. Drivers without toll tags or user accounts pay a higher toll rate in order to cover administrative costs.

Central Texas Regional Mobility Authority (CTRMA)
MoPac (State Highway Loop No. 1) Improvement Project is an eleven-mile north-south state highway that parallels I-35 and is commonly used as an alternative to the Interstate. The route is heavily travelled by 180,000 vehicles a day. The Capital Area Metropolitan Planning Organization (CAMPO) has identified MoPAC as a priority in its Long Range Transportation Plan, recommending HOV Lanes as a possible solution to congestion.

CTRMA was created in 2002 and quickly identified the route as a top priority project. CTRMA is recommending express lanes, similar to the MPO, to reduce congestion, improve travel times, and create reliable access for emergency vehicles. The Texas DOT, City of Austin, and Capital Metro have partnered with CTRMA to accomplish the priority project.

Source: MoPac Improvement Project
American-Statesman

Typically, in the creation of express lanes, public buses, car-pools, and van pools are able to ride at no charge. Drivers of other vehicle types, including single occupancy vehicles, are permitted to drive in the express lane for a fee. The toll varies as congestion levels vary throughout the day. Revenues generated from the managed lane are used to operate and maintain the roadway.

TxDOT and CTRMA have joined forces to jointly fund completion of the environmental study. An FHWA decision on the Environmental Assessment is expected in the fall of 2012. A regional mobility authority's top directive is to innovatively finance regional transportation projects. CTRMA has developed an innovative way to finance the project without a bond sale. According to a CTRMA and CAMPO joint news release, the arrangement allows "…the Mobility Authority to avoid a bond sale and save more than $314 million in interest and principal payments that would have been due over the next 35 years."

The Capital Area Metropolitan Planning Organization (CAMPO) has agreed to allocate $130 million to CTRMA toward the $200 million construction cost. In turn, CTRMA has agreed to deposit up to $230 million over the next 25 years into a Regional Infrastructure Fund, which can be used to fund other tolled and non-tolled projects in central Texas, including improvements to Interstate 35.

As far as the RMA is concerned, the project partnerships, innovative financing, and commitment to regional mobility needs are the agency's raison d'être and MoPac is a perfect example of that mission playing out.

Policy Alternatives

The Commission could consider any of the following alternatives for tolling in Wisconsin:

- Alternative 1 – Explore federal programs that would allow tolling in Wisconsin and suggest statutory language, as needed.
- Alternative 2 – Oppose tolling in Wisconsin.
- Alternative 3 – Make no recommendation on tolling.